Cincinnati Sub-Zero

MicroClimate®
Temperature/Humidity Chambers

MC-3

MCB-1.2

micro CLIMATE

Precise Temperature / Humidity Simulation in a Compact Chamber

MicroClimate chambers simulate a full range of temperature and/or humidity conditions. These chambers are designed to provide users with a compact chamber for testing small components and products for a variety of industries. Whether you need to perform temperature cycling tests or expose your product to steady state temperature environments, these chambers will maintain precise and accurate temperature/humidity control throughout your test. Choose from benchtop and reach in models to fit your laboratory testing needs.

Now features the new EZT-430i 4" touchscreen controller which includes ethernet control and monitoring, data logging, alarm notification and more.

MicroClimate Benchtop Temperature
Chamber shown in the stacked position.

Compact Size Saves Space
Temperature and Humidity testing combined with a small footprint make the MicroClimate the number one choice for testing small components and products. Customers also save valuable floor space in their test laboratory.

Quality & Reliability
The MicroClimate is designed with quality in mind. Each unit is carefully constructed with fully welded seams and ports to prolong chamber life. Each chamber is inspected at each point of the production process and fully tested prior to leaving our facility.

Easy Installation
Benchtop and 115V upright models offer easy installation at any location.

Stackable Design Offers Flexibility
Benchtop models may be stacked saving floor space and allowing for manual thermal shock testing.

Performance to Fit Your Application
Select from your choice of 115V or 230V models for faster heating & cooling performance. The NEW MC-3-1-1-HAC rapid cycling model now has cooling transition rates of 5°C/min.*

*Based on 85°C to -40°C

MicroClimate Features & Options

Standard Features

- Shelf Supports
- 2" Access Port with Plug (MCB-1.2)
- 3" Access Port with Plug (MC-3)
- Leveling Legs (MC-3)
- Humidity Demineralizer Filter*
- Solid State Humidity Sensor*

- EZT-430i Touch Screen Controller
- Ethernet Control and Monitoring
- RS-232 Computer Interface
- Refrigeration Service Taps
- Refrigeration High Temperature Protection
- Zero Ozone Depletion Refrigeration

* Humidity Units Only

Optional equipment is economically priced to enhance performance and customize your chamber to meet your needs. A complete selection of optional accessories are available.

Optional Accessories

- Shelves
- Access Ports
- Optional Cart with Casters (MCB)
- Viewing Window with Interior Light
- LN2 Boost
- Recirculating Water
- Dry Air Purge (MC-3)

- IEEE-488 Interface
- Chart Recorder
- Digital Display Temp. Limit & Alarm
- 50 Hz. Operation
- Watlow F4 Controller
- Windows-Based Software Package to control monitor up to 31 chambers

MC-3 shown with optional
window and humidity

Temperature Range		
Model	**MCB-1.2 Benchtop**	**MC-3 Upright**
Single Stage	-30°C to +190°C (-22°F to +375°F)	-
Cascade	-70°C to +190°C (-94°F to +375°F)	-70°C* to +190°C (-94°F to +375°F)

*Ultimate low for MC(H)-3-.33-.33-HAC models is -65°C

YOU CHOOSE!
Choose from drop-down menu navigation or icon-based navigation like smartphone/tablet technology

Communications & Connectivity

• Ethernet capability to remotely monitor and control multiple test chambers. Wired, wireless, local area network or World Wide Web Ethernet connectivity provides anytime, anywhere access using a PC or PDA device.

• Alarm notification system sends email and/or text phone messages in the event of a test chamber alarm, saving valuable tests while reducing downtime.

• Integrated email sends data files directly from the controller with a touch of a button.

Data Logging

• Data logging with custom file names, batch & lot numbers, operator events & digital signatures.

• Automated "Ethernet" back-up of data files provides "hassle free" file management.

• Easily download profiles, alarm files, audit trail files and data files to USB memory stick in a compatible .CSV file format. Also import profiles to other chambers saving valuable profile entry time.

• Access data files directly from controller or PC.

User Convenience & Flexibility

• Real time & historical trend graphs.

• Unlimited number of profiles. Each profile up to 64 steps with up to 6 events per loop.

• Profile status view provides details on the profile with stop date and time.

• Profile autostart allows profiles to begin at a date, day and time.

• 28 different languages – one setting updates icons, menus and help screen

Enhanced Functionality

• Selectable power failure/recovery options.

• Fully configurable alarm settings.

• Full system security allows up to 30 different users with three different levels of security.

MicroClimate Specifications

Physical Specifications		
Model	**MCB-1.2 Benchtop**	**MC-3 Upright**
Workspace Volume	1.2 cu. ft. (34 Liters)	3 cu. ft. (85 Liters)
Interior Dimensions	16" W x 11" D x 12" H (40.64cm x 28cm x 30cm)	17"W x 17"D x 18"H (43.2cm x 43.2cm x 45.7cm)
Exterior Dimensions	36.75" W x 30.5" D x 28" H (93cm x 77cm x 71cm)	25" W x 38.75" D x 65.5" H (63.5cm x 98.43cm x 166cm)

Add approximately 6" (15cm) to exterior width for humidity units. Addition of certain options may increase dimensions.

MicroClimate Performance									
Cooling Performance with Empty Chamber in Minutes from:						Heating Performance with Empty Chamber in Minutes from:			
	24°C					24°C		-25°C	-34°C	-68°C
	-18°C	-25°C	-40°C	-54°C	-68°C	94°C	190°C	24°C	24°C	24°C
MCB-1.2-.33-H/AC	9	14	-	-	-	10	35	8	-	-
MCB-1.2-.33-.33-H/AC	-	-	20	25	40	10	35	-	10	15
MC-3-.33-.33-H/AC	-	-	35	65	110	20	75	-	20	25
MC-3-.5-.5-H/AC	-	-	22	32	48	6	18	-	7	8
MC-3-1-1-H/AC	-	-	12	16	24	2.5	10	-	3.5	4

Performance is based on 60 Hz. operation and a 24°C ambient. Certain options may affect performance. For 50 Hz operation, stated performance and air flow will be less. Specifications are subject to change.

Live Load Capacity				Electrical Power Requirements	
Watts				Minimum Amp Service	
0°C	18°C	-40°C	-54°C	115V	230V
MCB-1.2-.33-H/AC	200	150	-	-	20	15
MCB-1.2-.33-.33-H/AC	-	-	175	100	20	15
MC-3-.33-.33-H/AC	-	-	175	100	20	-
MC-3-.5-.5-H/AC	-	-	350	250	-	30
MC-3-1-1-H/AC	-	-	800	500	-	40

The Experience you Rely on...

Cincinnati Sub-Zero (CSZ) Products, Inc. is an ISO-9001 certified company with over 69 years of industry experience designing and manufacturing temperature-controlled products of the highest quality, with a commitment to total customer satisfaction.

At CSZ, we offer a complete line of both standard and custom-designed environmental simulation chambers including:

- Temperature Cycling
- Humidity
- Stability Cabinets & Rooms
- Thermal Shock
- Stress-Screening
- Altitude
- AGREE Vibration

- HALT/HASS
- Freezers
- Liquid Chillers
- Wind & Rain
- Sand & Dust
- Other Temperature Management Solutions

Sizes range from benchtop to full walk-in/drive-in chambers.

TESTING SERVICES

CSZ Testing Services is an A2LA Accredited Test Laboratory utilizing the latest test technology. CSZ is your one stop source for all of your environmental simulation testing needs. Our testing laboratory is here to help with your product qualification testing, overflow testing and /or third party product validation. Testing capabilities include Temperature, Humidity, and/or Vibration, Thermal Shock, Burn-in, Altitude, Vibration, Shock, Salt Spray, and Cyclic Corrosion test. Serving you from two locations in Cincinnati, OH and Sterling Heights, MI. For more information please call CSZ Testing headquarters at 513-793-7774 or visit **www.csztesting.com.**

CSZ is your one stop solution for ...

Environmental Chambers
Freezers
System Upgrades
Preventative Maintenance
Calibration Services
Contract Testing Services

Cincinnati Sub-Zero Products, Inc.
12011 Mosteller Road
Cincinnati, OH 45241
(p) 513-772-8810
(f) 513-772-9119
www.cszindustrial.com